

Title (en)
LOW-JITTER LOOP FILTER FOR A PHASE-LOCKED LOOP SYSTEM

Title (de)
SCHLEIFENFILTER MIT GERINGEM JITTER FÜR EIN PHASENREGELKREISSYSTEM

Title (fr)
FILTRE DE BOUCLE A FAIBLE GIGUE POUR SYSTEME DE BOUCLE A VERROUILLAGE DE PHASE

Publication
EP 1466410 A4 20050323 (EN)

Application
EP 03705696 A 20030109

Priority

- US 0300576 W 20030109
- US 4355802 A 20020110

Abstract (en)
[origin: EP1858164A1] A loop filter device and method for implementing a loop filter for a phase locked loop ("PLL") circuit, which locks a frequency of a signal to a reference frequency, are disclosed. The loop filter (405) includes a proportional path circuit (500) and an integral path circuit (502). The proportional path circuit (500) receives a charge pump output and determines and holds a charge to be directed to or taken from a PLL circuit throughout an update period based on a detected phase difference for the update period for locking a frequency of a signal for a PLL circuit to a reference frequency. The integral path circuit (502) is coupled to the proportional path circuit (500), and the integral path circuit (502) receives another charge pump output and tracks a total charge level for the PLL circuit based on phase differences for present and prior update periods.

IPC 1-7
H03L 7/00; **H03L 7/18**

IPC 8 full level
H03L 7/093 (2006.01); **H03L 7/089** (2006.01); **H03L 7/18** (2006.01)

CPC (source: EP US)
H03L 7/0893 (2013.01 - EP US); **H03L 7/18** (2013.01 - EP US); **H03L 7/093** (2013.01 - EP US)

Citation (search report)

- [X] US 5121085 A 19920609 - BROWN RUSSELL W [CA]
- [X] EP 0642227 A1 19950308 - NEC CORP [JP]
- [X] US 5180993 A 19930119 - DENT PAUL W [SE]
- [PXPY] US 2002101289 A1 20020801 - MANEATIS JOHN GEORGE [US]
- [PXPY] US 2002051509 A1 20020502 - LINDNER MANFRED [DE], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)
EP 1858164 A1 20071121; AT E428224 T1 20090415; AU 2003207487 A1 20030730; DE 60327046 D1 20090520; EP 1466410 A1 20041013; EP 1466410 A4 20050323; EP 1466410 B1 20090408; JP 2005532710 A 20051027; JP 4349910 B2 20091021; US 2003128074 A1 20030710; US 2004095196 A1 20040520; US 6690240 B2 20040210; US 6828864 B2 20041207; WO 03061130 A1 20030724

DOCDB simple family (application)
EP 07014245 A 20030109; AT 03705696 T 20030109; AU 2003207487 A 20030109; DE 60327046 T 20030109; EP 03705696 A 20030109; JP 2003561099 A 20030109; US 0300576 W 20030109; US 4355802 A 20020110; US 61220003 A 20030703